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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,881	08/14/2001	Doron Oz	CISCP714	9292
26541	7590	11/28/2005	EXAMINER	
Cindy S. Kaplan P.O. BOX 2448 SARATOGA, CA 95070			GREY, CHRISTOPHER P	
			ART UNIT	PAPER NUMBER
			2667	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/929,881	Applicant(s) Oz et al.	
	Examiner Christopher P Grey	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 August 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

1. Responsive to the amendments filed on August 29, 2005, the revised drawings (figs 1-5) have been entered as requested and new claims 29 and 30 have been entered as requested.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fan et al. (US 6643269), hereinafter referred to as Fan, in view of Gullicksen et al. (US 20040190461), hereinafter referred to as Gullicksen, in further view of Casper et al. (US 6188675), hereinafter referred to as Casper.

Claim 1 Fan et al. ('Fan' hereinafter') discloses a number of nodes connected in a dual ring formation (see fig 1 and Col 5 lines 15-22 and Col 7 lines 48-63).

Fan discloses each node periodically receiving an address message from its neighboring node (adjacent node). When a different message is received from a neighboring node, the node identifies a topology change in the network (Col 3 lines 6-19).

If a node detects a change in the networks topology, the node modifies (adopts) its information regarding topology to accommodate the change, where topology reconfiguration may include a number of scenarios (Col 1 lines 49-64 and Col 3 lines 6-19).

Fan discloses receiving topology information, but does not specifically disclose polarity state information, and that information being either fixed or floating.

Gullicksen discloses a node issuing a query message to adjacent nodes in order to update a configuration state or connection state (polarity information) as disclosed in paragraphs 0053, 0046 and 0047.

The combined teachings of Fan and Gullicksen do not specifically disclose a floating polarity state.

Casper discloses adjacent nodes having an unknown topology/configuration, and in response to a request for information, returning a message indicating an unknown topology (Col 5 line 66-Col 6 line 14).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine within the node as disclosed by Fan, a CSDP manager as disclosed by Gullicksen. The motivation for this modification is to achieve configuration (paragraph 0046) and establish a connection state (paragraph 0053). Furthermore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to make modification to the updating of topology information as disclosed by Fan by not only updating topology information in the event of a change in topology, but also identifying the network topology for an unknown network node as disclosed by

Casper. The motivation for these modifications is to configure a network topology and identify a node within a network (Col 3 lines 48-59).

Claim 2, 9, 16 Fan discloses each node within the network transmitting a message address to its neighboring node (Col 3 lines 6-19). Furthermore Fan discloses topology information being broadcast/propagated to all other nodes in the network (Col 12 lines 19-31).

Claim 3, 10, 17, 24 Fan discloses a reconfiguration of the topology in a network node where a change (adopt) is made in topology information as disclosed in the rejection of claims 1, 8, 15 and 22. However Fan does not specifically disclose, a default ring connection polarity state in the event of a floating adjacent node.

Casper discloses an unknown network node state (floating), where it would have been obvious to one of the ordinary skill in the art at the time of the invention to set the unknown state as a default state as they are often interpreted the same. The motivation is the same as that for claims 1, 8, 15 and 22 respectively.

Claim 4, 11, 18 and 25 The rejection of claims 3, 10, 17 and 24 disclose transmitting topology information in the event of a change (indication), and furthermore, a node indicating that it has an unknown state.

Fan discloses a change in topology information being broadcast/propagated to all other nodes in the network (Col 12 lines 19-31).

Claim 5, 12, 19, 26 Fan discloses operating the network nodes in a dual ring configuration (Col 7 lines 48-63).

Adopting a ring connection polarity state is disclosed in the rejection of claims 1, 8, 15 and 22 respectively.

Claim 6, 13, 20, 27 The combined teachings of Fan and Casper do not disclose the network node operating in accordance with DPT/SRP. However the Background of the Invention discloses network nodes operating in a DPT/SRP environment (page 2 lines 14-22).

Claim 7, 14, 21, 28 Fan discloses a session identifier (path trace message) where each device/node updates the current session number of that identifier as the message is sent throughout each node within the network (Col 4 lines 60- Col 5 lines10).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to use polarity information contained within the topology information within the network.

Claim 8 Fan et al. ('Fan' hereinafter') discloses a number of nodes (first and second interfaces as seen in fig 1) connected in a dual ring formation (see fig 1 and Col 5 lines 15-22 and Col 7 lines 48-63).

Fan discloses each node periodically receiving an address message from its neighboring node (adjacent node). When a different message is received from a neighboring node, the node identifies a topology change in the network (Col 3 lines 6-19).

If a node detects a change in the networks topology, the node modifies (adopts) its information regarding topology (polarity state information) to accommodate the

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change, where topology reconfiguration may include a number of scenarios (Col 1 lines 49-64 and Col 3 lines 6-19).

Fan discloses receiving topology information, but does not specifically disclose receiving polarity state information, being either fixed or floating. Casper discloses a system for configuring nodes within a network by identifying a topology (Col 1 lines 66-Col 2 line 15). Casper discloses configuring a node that has an unknown topology (floating) by sending information regarding a known network topology (fixed) from an adjacent node (Col 2 lines 36-47 and Col 2 line 65- Col 3 line 18).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to make modification to the updating of topology information as disclosed by Fan by not only updating topology information in the event of a change in topology, but also identifying the network topology for an unknown network node as disclosed by Casper. The motivation for these modifications is to configure a network topology and identify a node within a network (Col 3 lines 48-59).

Claim 15 Fan discloses each node periodically receiving an address message from its neighboring node (adjacent node). When a different message is received from a neighboring node, the node identifies a topology change in the network (Col 3 lines 6-19).

If a node detects a change in the networks topology, the node modifies (adopts) its information regarding topology to accommodate the change (Col 1 lines 49-64 and Col 3 lines 6-19).

Fan discloses receiving topology information, but does not specifically disclose receiving polarity state information, being either fixed or floating and adopting a polarity as necessary. However Casper discloses a system for configuring nodes within a network by identifying a topology (Col 1 lines 66-Col 2 line 15). Casper discloses configuring a node that has an unknown topology (floating) by sending information regarding a known network topology (fixed) from an adjacent node (Col 2 lines 36-47 and Col 2 line 65- Col 3 line 18).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to make modification to the updating of topology information as disclosed by Fan by not only updating topology information in the event of a change in topology, but also identifying the network topology for an unknown network node as disclosed by Casper. The motivation for these modifications is to configure a network topology and identify a node within a network (Col 3 lines 48-59).

Claim 22 Fan discloses a CPU and memory within a node (see fig 6 elements 46 and 49), where it would have been obvious to one of the ordinary skill in the art at the time of the invention to apply a computer program product applying code.

Fan discloses each node periodically receiving an address message from its neighboring node (adjacent node). When a different message is received from a neighboring node, the node identifies a topology change in the network (Col 3 lines 6-19) and modifies its information regarding topology to accommodate the change, (Col 1 lines 49-64 and Col 3 lines 6-19).



Furthermore Fan discloses topology information being broadcast/propagated to all other nodes in the network (Col 12 lines 19-31).

Fan discloses receiving topology information, but does not specifically disclose receiving polarity state information, being fixed. However Casper discloses a system for configuring nodes within a network by identifying a topology (Col 1 lines 66-Col 2 line 15). Casper discloses configuring a node by sending information regarding a known network topology (fixed) from an adjacent node (Col 2 lines 36-47 and Col 2 line 65- Col 3 line 18).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to make modification to the updating of topology information as disclosed by Fan by not only updating topology information in the event of a change in topology, but also identifying the network topology for a network node as disclosed by Casper. The motivation for these modifications is to configure a network topology and identify a node within a network (Col 3 lines 48-59).

Claim 29, 30 (new) Fan discloses the dual ring environment within a SONET architecture, where DPT/SRP is well known and used within the art as indicated by the applicant's background of the invention.

Fan does not specifically disclose the ring connection polarity state identifying one ring of said dual ring as an inner ring and other ring of said dual ring as an outer ring.

Gullicksen disclose the ring connection polarity state identifying one ring of said dual ring as an inner ring and other ring of said dual ring as an outer ring (paragraph 0047 and see fig 13).

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the polarity state information as disclosed by Gullicksen can be combined within the topology information as disclosed by Fan. The motivation for this combination is ultimately for configuration of a network nodes topology as discussed in claim 1.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Emberty et al. (US 6657968) discloses two nodes communicating in a normal mode, where when there is a fault/error a glitch mode is executed, and a polarity changed.

(b) McAllister et al. (US 6876625) discloses a method and apparatus for synchronizing the topology information of two nodes interconnected network nodes, where a node passes topological state information to another node.

(c) Hsu (US 2003/0005131) discloses configuring a node dependant on the amount of traffic being transmitted, including changing the polarity where necessary.

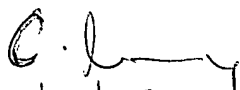
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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey  
Examiner  
Art Unit 2667

  
11/22/05



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